

# **PHYSICAL FITNESS FOR A STRONGER AMERICA**

a basic exercise sequence for developing physical fitness through a *Circuit Training* program



*Prepared for the President's Council on Physical Fitness and Sports by the* ***Circuit Training*** *program*

# *Why an Active Physical Fitness Program is Essential to the Strength of our Nation...*

THE WHITE HOUSE  
WASHINGTON

There are few sights more thrilling than the performance of a star athlete: O. J. Simpson breaking through the line for a long run, Arnold Palmer smashing one long and high and straight down the fairway, Wilt Chamberlain grabbing a rebound beneath the boards.

But it is even more thrilling to discover our own level of physical performance, our own peak of fitness, to engage in programs and sports which call into play not only our muscles but our spirit.

For the young, physical fitness can and should mean more than the ability to participate in a sport; it can be a new sense of personal esteem, a pride in performance which extends far beyond the activity itself, a road to healthy growth and development of the body and the mind.

For the adult, it can often mean the difference between life and death. In this age of mechanization and automation, a program of physical fitness can restore and preserve the energy and endurance and sense of well-being which too often are missing in an increasingly sedentary way of life.

Our national goal is not to make every citizen an athlete, but to encourage every citizen to become aware of the pleasure and the challenge of physical fitness. In this way our fitness programs can make a significant contribution to the quality of our national life.



Richard M. Nixon

"Our own history, perhaps better than the history of any other great country, vividly demonstrates the truth of the belief that physical vigor and health are essential accompaniments to the qualities of intellect and spirit on which a nation is built."

**JOHN F. KENNEDY**

"During my many years in baseball, I saw a lot of great prospects come up to the major leagues and then drop out of sight in a few years. The people who stayed around and did the job were those who kept themselves in shape. It's my observation that the same thing is true in all walks of life."

**TED WILLIAMS**

*Chairman, Sears Sports Advisory Staff*

"There simply isn't any way to be fully effective—in sports, in politics, or in any other human endeavor—while operating at half-strength or half-speed. Physical fitness influences intellectual performance in the same subtle way that mental attitude affects athletic performance."

**ROBERT B. MATHIAS, M.C.**

*Member, Sears Sports Advisory Staff*

"During 25 years of teaching experience, I found that there is an undeniable correlation between physical fitness and mental fitness."

**DR. HOLLIS L. CASWELL,**

*Former President, Teachers College, Columbia University*

"The exercise factor is one of the most important, and the most neglected, of the practices individuals should utilize to enjoy the added years science is making possible. It begins to appear that exercise is the master conditioner for the healthy and the major therapy for the ill."

**EDWARD L. BORTZ, M. D.**

*Former President, The American Medical Association*

# Physical Fitness Thru Circuit Training

## **What Is Circuit Training?**

Circuit training is a modern method of physical conditioning which offers an interesting and exciting challenge. Equipment and facilities are utilized in ways which permit the participant to get a complete workout and engage in a variety of activities in a limited time. Circuit training gets its name from the fact that the participant makes one or more trips around a prescribed course, stopping at each station along the way to perform various exercises.

Circuits can be set up without equipment, but gymnasium, playground and athletic apparatus generally is used. The difficulty of the circuit can be increased or decreased to fit the needs of individuals or groups. If equipment and exercises are properly selected, a 10 or 12-station course can be used to condition the cardiorespiratory system and all of the body's major muscle groups.

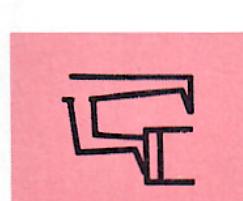
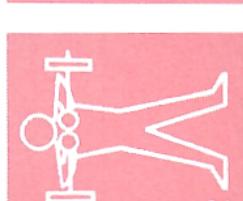
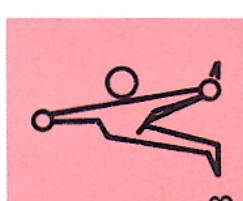
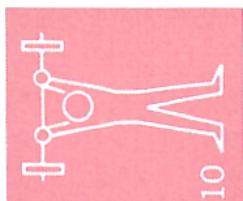
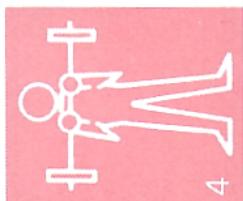
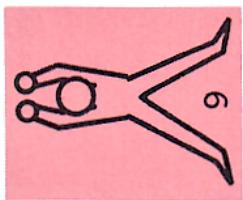
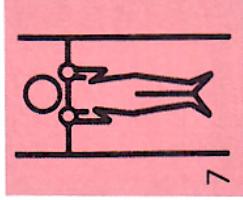
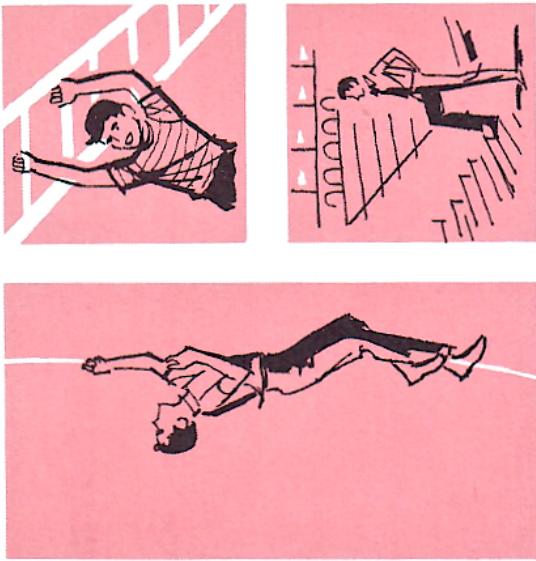
The circuit illustrated in this booklet was developed by the President's Council on Physical Fitness and Sports primarily for use in schools and colleges and universities. However, it is easily adapted for use by YMCAs, athletic clubs, boys' clubs and other groups.

*James G. Lovell  
Consultant to the President  
on Physical Fitness and Sports  
NASA Astronaut*

## 1. ROPE CLIMB

## 2. HORIZONTAL LADDER

## 3. STADIUM STEPS



# THE CIRCUIT TRAINING METHOD

## Laying Out the Course

The circuit may be set up anywhere space is available, indoors or out. Gymnasiums and playing fields usually are the best locations. Exercise stations should be arranged in a circuit around the field or gymnasium floor and numbered consecutively. Leave an open running lane around the perimeter of the exercise area and leave enough space between stations so that participants do not interfere with each other.

The course described in this publication utilizes twelve stations which together provide a vigorous and well-rounded workout. These stations can be set up indoors or out. Specific instructions for each station are given on the following

pages and the complete layout is illustrated above and on the outside back cover.

## Adjusting the Workloads

Three variables—exercise loads, repetitions and time—can be used to add interest and challenge to the circuit. The supervisor may want to set a specified time for completing one or more circuits, or he may establish a time limit and see how many circuits the participants can complete during that period. In this program, 12 minutes is allowed for the workout and participants attempt to complete the circuit as many times as possible. Difficulty of the circuit can be increased by increasing repetitions and exercise loads.

## Adapting the Circuit to Local Conditions

The imaginative teacher or leader can think of hundreds of variations on the circuit that will accomplish the desired purposes and yet adapt to existing facilities and conditions. The limitless opportunities of using interesting adaptations for physical conditioning are among the great advantages of the circuit training method. Climbing ropes, horizontal ladders, bleacher or stadium seats, balance beams, uneven terrain are but a few examples of exercise stations, other than those given in this booklet, which can be incorporated into a "home-made" circuit. A variety of calisthenics and stunts also can be employed, as well as various forms of locomotion, e.g. hopping, jumping, zig-zag running and the like.

# How to Set Up and Conduct This Program for any Group

## STEP 1

### **Setting Goals**

Before goals can be set, a certain amount of testing and experimentation with the individuals or groups involved is necessary. In heavy resistance exercises such as bar dips, weight-lifting and pullups, the goal should be approximately half the number of repetitions the performer can do in a 30-second test. In endurance exercises such as the bench step, sprinter and squat thrust, the goal should be half the repetitions the performer can do in a one-minute test. Goals should be revised upward as performance improves.

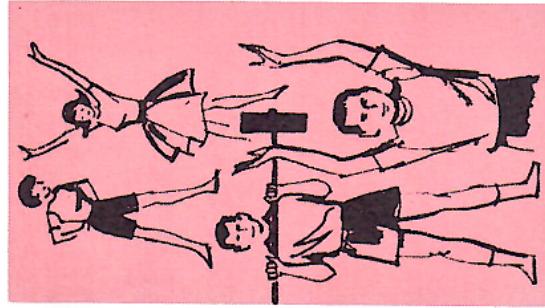
## STEP 2

### **How to Start**

The 12-station circuit will accommodate 48 participants performing simultaneously and continuously. Before starting, each participant should be instructed to make certain that he can perform each exercise properly and safely.

At the beginning of the workout, there should be four or fewer performers at each of the 12 stations. On the command "Ready . . . Go!" the performers begin the exercises, working independently of each other. Each keeps

count of his (or her) repetitions and stays at each station until the exercises have been completed, even if this requires resting between repetitions. At the end of 12 minutes the command to stop is given and each performer reports the number of circuits and stations completed. Some instructors place student leaders at the stations to assure that exercises are performed properly.



Suggested goals for different age groups will be found at the bottom of each card on the following pages. There are two suggested levels of performance—red and black. The red goals are for beginners, the black for advanced performers.



**NOTE:**

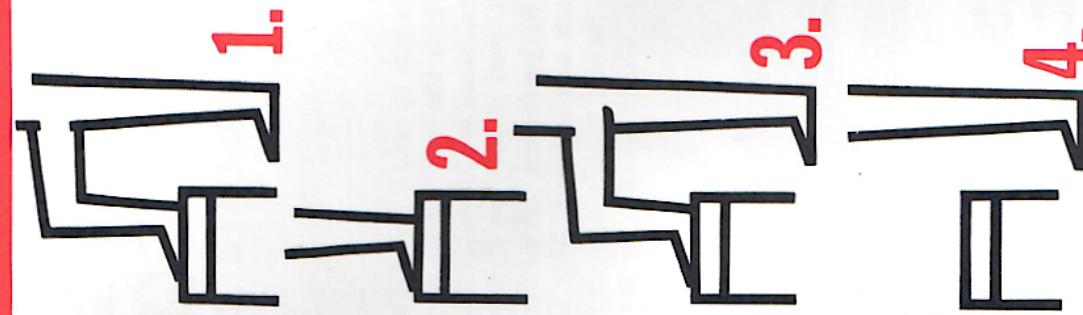
The "Cards" illustrated on the following pages have been reduced from 14 x 22-inch size.  
Please see page 18 of this booklet for reproduction specifications and suggestions.

# 1

## BENCH STEP

### ACTION:

1. PLACE RIGHT FOOT ON BENCH.
2. BRING LEFT UP AND STAND ERECT.
3. LOWER RIGHT FOOT TO FLOOR.
4. LOWER LEFT FOOT TO FLOOR.



GOAL-COMPLETE TRIPS

GOAL-COMPLETE TRIPS

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### SUGGESTED GOALS

Use a bench with a firm foundation large enough to accommodate six performers at once. The height of the bench should be approximately 15 inches.

- |                |                |
|----------------|----------------|
| Black—15 trips | Black—25 trips |
| Red—10 trips   | Red—20 trips   |
| Black—20 trips | Black—30 trips |
| Red—15 trips   | Red—25 trips   |

- |               |                      |
|---------------|----------------------|
| 1. Grades 4-6 | 3. Grades 10-12      |
| 2. Grades 7-9 | 4. College and above |

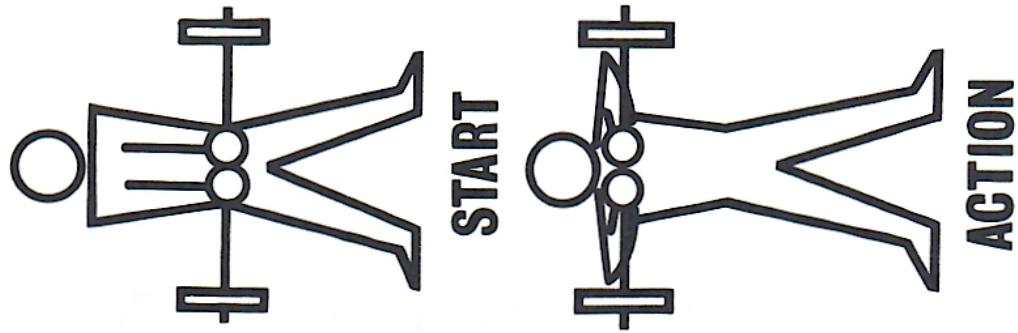
## CARD 1

# 2

# UPRIGHT ROWING

## ACTION:

1. PULL BAR TO CHIN, HOLD ELBOWS HIGH.
2. RETURN TO STARTING POSITION.



GOAL -  REPETITIONS  
GOAL -  REPETITIONS

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## SUGGESTED GOALS

	Repetitions	Weight	Black	Repetitions	Weight
1. Grades 4-6	Black 6 Red 4	20	3. Grades 10-12	Black 10 Red 6	40 30
2. Grades 7-9	Black 8 Red 6	25	4. College and above	Black 10 Red 6	60 40

## CARD 2

Each performer should be thoroughly instructed in the proper procedure for doing the weight training exercises. Student leaders should be present at all weight-lifting stations to assure safe, correct performance. A minimum of 4 barbells should be available.

1. Grades 4-6
2. Grades 7-9

# 3

# WINDMILL and JOG

## ACTION:

- 1. BEND AND TWIST TRUNK, TOUCHING  
RIGHT HAND TO LEFT TOE.**
- 2. RETURN TO STARTING POSITION.**

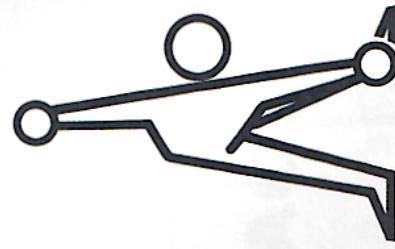
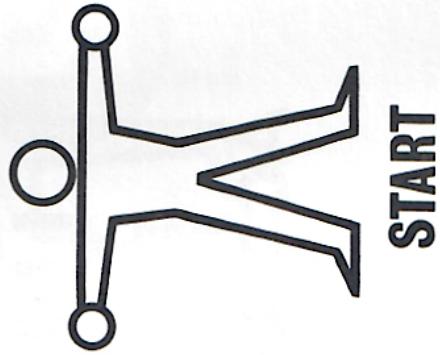
- 3. & 4. SAME ACTION TO OTHER SIDE.**

**GOAL -**  REPETITIONS

**GOAL -**  REPETITIONS

**PLUS: ALL JOG ONE LAP**

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1. Grades 4-6
2. Grades 7-9
3. Grades 10-12
4. College and above

Black—6      Red—4      Black—3      Red—6  
Black—10      Red—8      Black—12      Red—10

## CARD 3

The jog is performed outside the perimeter of the circuit. This is not a sprint.  
When the new idea are

# 4

## TWO HAND CURL

### ACTION:

1. CURL BAR UPWARD TO CHIN,  
BEND ARMS AT ELBOW.
2. RETURN TO STARTING POSITION.

GOAL -  REPETITIONS

GOAL -  REPETITIONS

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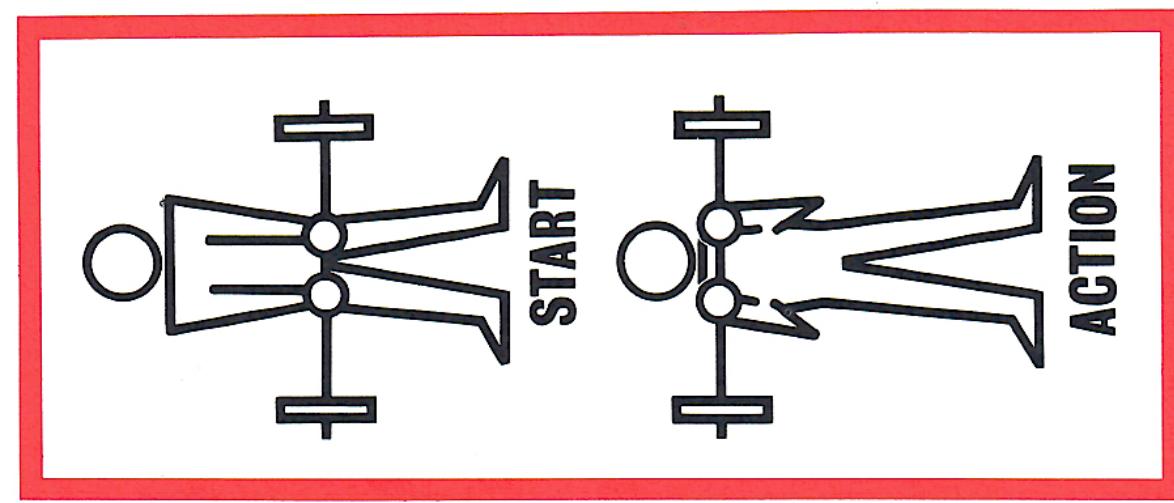
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### SUGGESTED GOALS

	Repetitions	Weight	3. Grades 10-12	Black	Repetitions	Weight
1. Grades 4-6	Black Red	6 4	10 10	Black Red	10 6	40 30
2. Grades 7-9	Black Red	8 6	30 20	4. College and above Black Red	10 6	60 40

## CARD 4

In the starting position the palms face away from body. A minimum of 4 barbells should be available. Student leaders should be present at all weight-lifting stations to assure safe, correct performance.



# 5

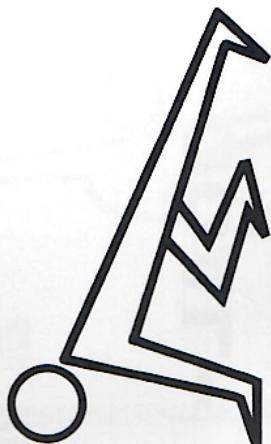
## SPRINTER

### ACTION:

1. REVERSE POSITION OF FEET.
2. REVERSE POSITION OF FEET.



START



ACTION

GOAL -  REPETITIONS

GOAL -  REPETITIONS

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### SUGGESTED GOALS

1. Grades 4-6	Black—8 Red—4	3. Grades 10-12	Black—16 Red—12
2. Grades 7-9	Black—12 Red—8	4. College and above	Black—20 Red—16

## CARD 5

The back and extended leg should form a straight line. Insist on proper performance.

# 6

## SIT-UPS and JOG

### ACTION:

1. ROLL UP TO SITTING POSITION.
2. ROLL BACK TO STARTING POSITION.

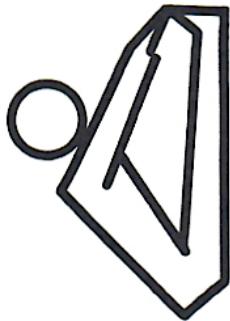
**GOAL-**  REPETITIONS

**GOAL-**  REPETITIONS

**PLUS: ALL JOG ONE LAP**



START



ACTION



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### SUGGESTED GOALS

Black-14	3. Grades 10-12	Black-18
Red-9		Red-13
Black-16	4. College and above	Black-20
Red-11		Red-15

The performer should attempt to touch toes if possible. Jog once around circuit before moving to next station.

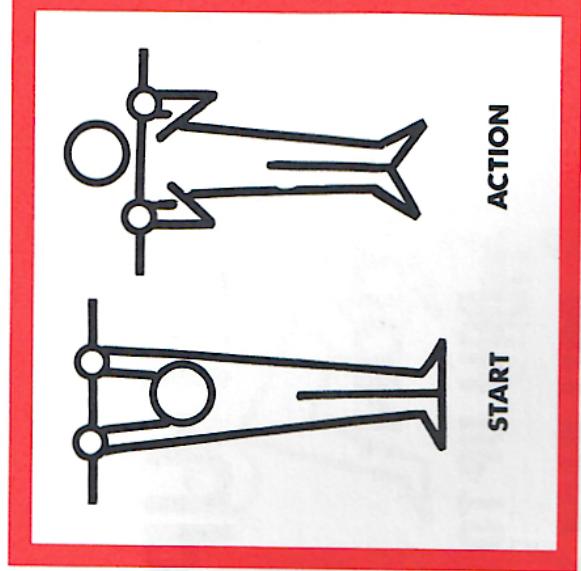
**CARD 6**

1. Grades 4-6
2. Grades 7-9

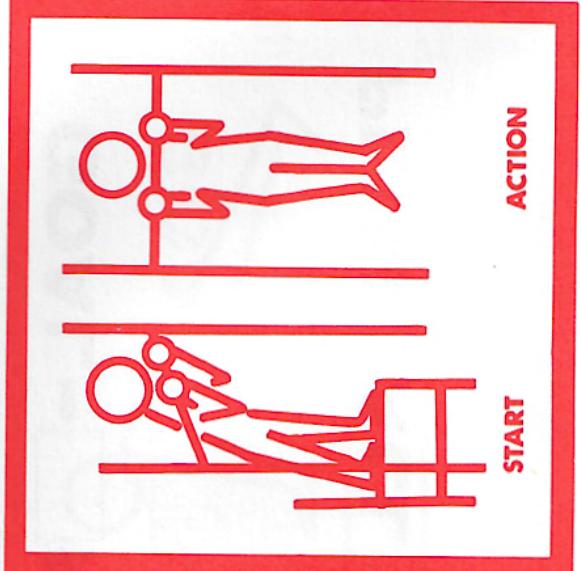
# 7

## PULL-UPS

GOAL-  OVERHAND



ACTION



ACTION

## BENT ARM HANG

GOAL-  SECONDS



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### SUGGESTED GOALS

	Pullup	Bent Arm Hang	Pullup	Bent Arm Hang
1. Grades 4-6	Black Red	3 1	12 seconds 6 seconds	3. Grades 10-12 4. College and above
2. Grades 7-9	Black Red	4 2	14 seconds 6 seconds	6 3 8 seconds 7 22 seconds 4 9 seconds

## CARD 7

An overhand grip, palms facing away from body is used for both the pull-up and the bent arm hang. Performers should count seconds aloud.

# 8

# SQUAT THRUST

## ACTION:

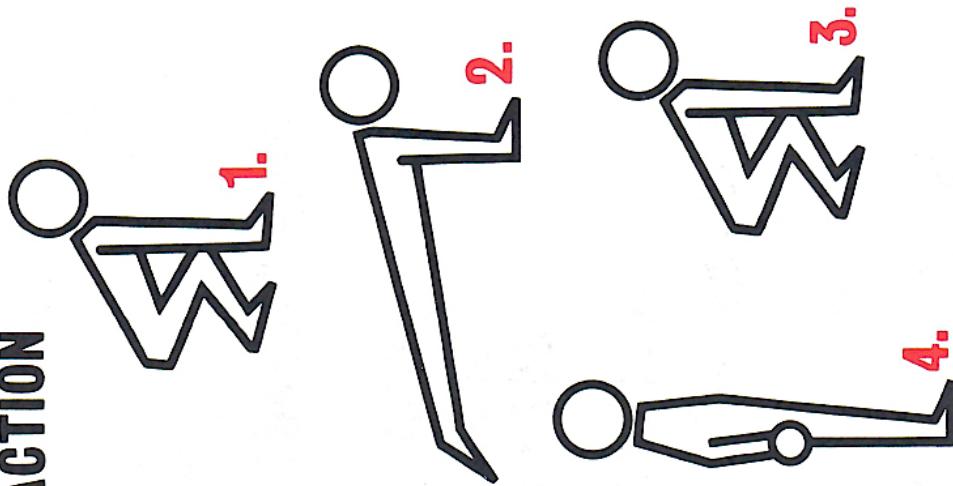
1. BEND KNEES PLACE HANDS ON FLOOR.
2. THRUST LEGS BACKWARD.
3. RETURN TO SQUAT POSITION.
4. RETURN TO ERECT POSITION.

**GOAL-**  REPETITIONS  
**GOAL-**  REPETITIONS



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## ACTION



## SUGGESTED GOALS

1. Grades 4-6	Black-8 Red-4	3. Grades 10-12	Black-12 Red-8
2. Grades 7-9	Black-10 Red-6	4. College and above	Black-12 Red-8

# CARD 8

The performer must come to an erect position at the completion of each squat thrust. The back and legs should form a straight line when in the extended position.

# 9

## SIDE STRADDLE HOP and JOG

### ACTION:

**1. SWING ARMS UPWARD AND  
TOUCH OVERHEAD WHILE MOVING  
FEET SIDEWARD AND APART.**

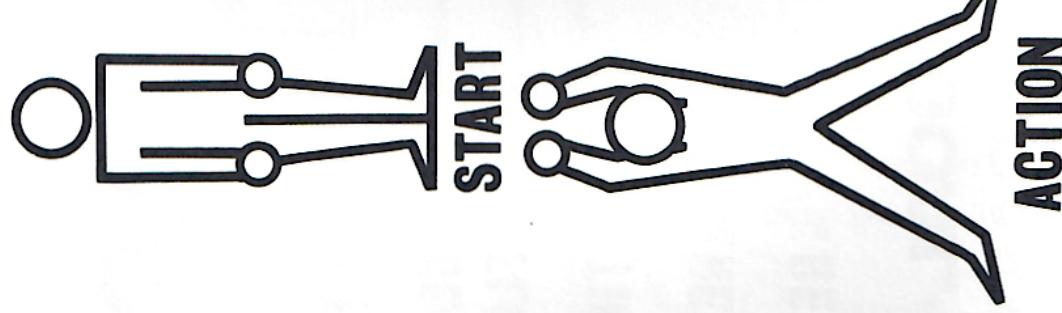
**2. RETURN TO STARTING POSITION.**

**GOAL -  REPETITIONS**

**GOAL -  REPETITIONS**

**PLUS: ALL JOG ONE LAP**

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1. Grades 4-6
2. Grades 7-9
3. Grades 10-12
4. College and above

SUGGESTED GOALS	
Black-10 Red-6	3. Grades 10-12
Black-12 Red-8	4. College and above
Black-20 Red-16	

## CARD 9

Insist on good technique in the performance of the side straddle hop. Jog once around circuit before moving to next station.

# 10

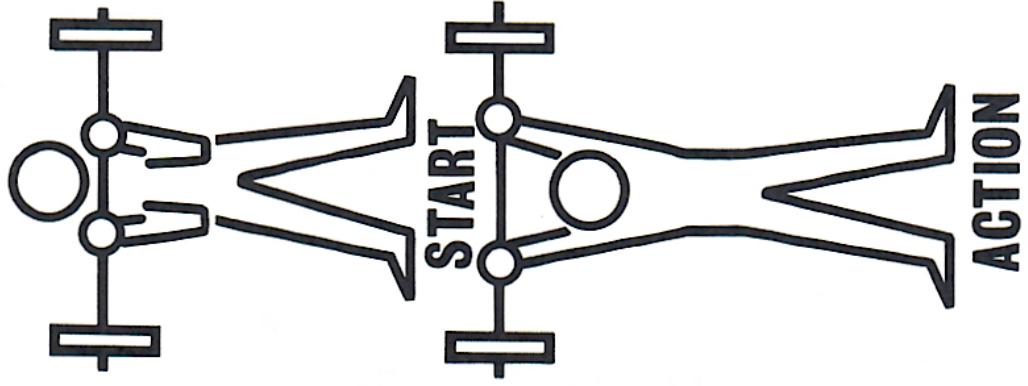
# STANDING PRESS

## ACTION:

1. PRESS WEIGHT OVER HEAD.
2. RETURN TO STARTING POSITION.

**GOAL-**  REPETITIONS

**GOAL-**  REPETITIONS



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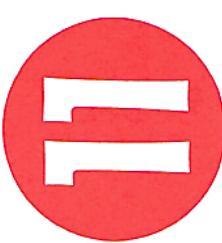
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### SUGGESTED GOALS

	Repetitions	Weight	Repetitions	Weight		
1. Grades 4-6	Black Red	6 4	15 lbs. 10 lbs.	3: Grades 10-12 Black Red	8 4	30 lbs. 15 lbs.
2. Grades 7-9	Black Red	8 4	20 lbs. 15 lbs.	4: College and above Black Red	8 4	45 lbs. 20 lbs.

## CARD 10

Each performer should receive individual instruction in the techniques of doing this exercise and proper spotting methods. Student leader should be present at all weight-lifting stations to assure safe, correct performance. A minimum of 4 barbells should be available.



# TRUNK TWISTER

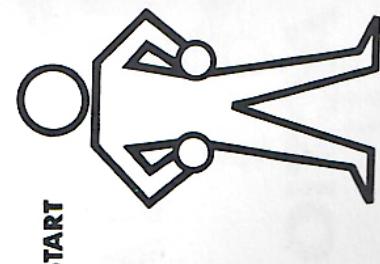
## ACTION:

- 1. BEND FORWARD FROM WAIST.**
- 2. TWIST TRUNK TO RIGHT.**
- 3. BEND TRUNK BACKWARD.**
- 4. TWIST TRUNK TO LEFT.**

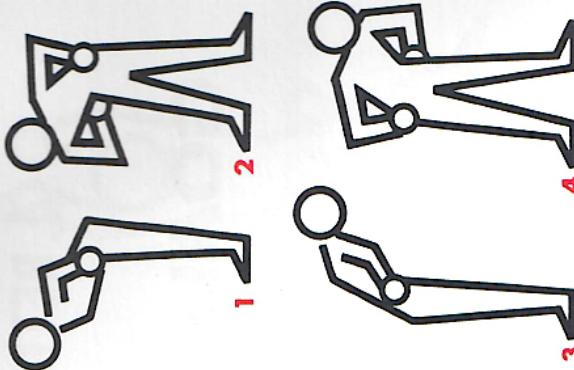
**GOAL— EACH WAY**

**GOAL— EACH WAY**

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When the sun rises and*



ACTION



1. Grades 4-6
2. Grades 7-9

Black—5 each way  
Red—5 each way  
Black—5 each way  
Red—5 each way

3. Grades 10-12

Black—5 each way  
Red—5 each way  
Black—5 each way  
Red—5 each way

Performance goals are identical for all groups for the trunk twister. Stress technique improvement.

## CARD 11

# 12

## BAR DIPS and JOG

**ACTION:**

1. HAND SUPPORT POSITION.
2. LOWER BODY BY BENDING ARMS.
3. RETURN TO STARTING POSITION.

**GOAL-**  **REPETITIONS**

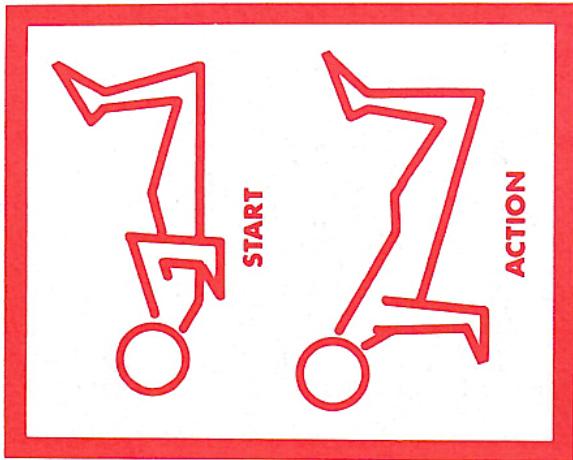
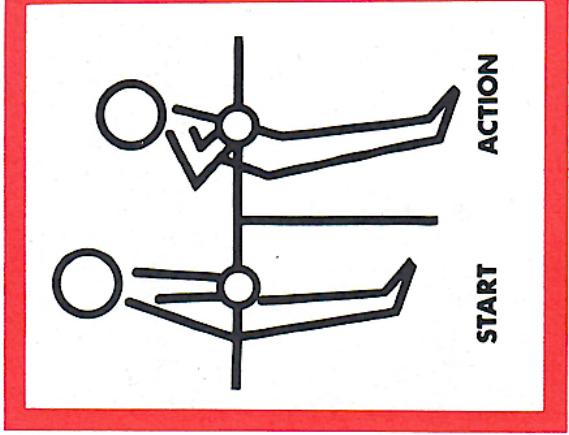
## KNEE PUSH-UPS and JOG

**ACTION:**

1. EXTEND ARMS – RAISE BODY
2. LOWER BODY SO CHEST TOUCHES FLOOR

**GOAL-**  **REPETITIONS**

**PLUS:** ALL JOG ONE LAP



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### SUGGESTED GOALS

Jog once around circuit before moving to next station.

## CARD 12

	Bar Dips	Bent Knee Pushups	3. Grades 10-12	Black Red	Bar Dips	Bent Knee Pushups
1. Grades 4-6	Black Red	4 2	6 4	8 4	Black Red	12 8
2. Grades 7-9	Black Red	6 3	8 6	4 5	College and above Red	20 10

# HOW TO REPRODUCE THESE "CARDS" FOR USE IN YOUR PROGRAM

SIZE	MOUNT OR PRINT ON <b>HEAVY CARDSTOCK</b>
RECOMMENDATION	14x22-inches is an ideal size card for most circuit training groups. Every element is easy-to-read at this size yet the cards are easy to handle and store.

SIZE	PROTECTIVE COATING
55-point board	Fingerprints, smudges and moisture can ruin your cards in a short time unless you coat them well. Printers can apply a plastic coating or you can use any clear plastic spray.

## REPRODUCTION METHODS

### — *within a school* —

#### 1. SCHOOL ART CLASS

This is an ideal project for an intermediate class. Accuracy and neatness should be stressed.

#### 2. SCHOOL PRINT SHOP

Simple, 2-color line work makes this interesting to your print shop. In a letterpress shop, the art class would probably be required to do the figures.

#### 3. SCHOOL PHOTO LAB

Photographic enlargements mounted on boards will give you a fine, 1-color set of circuit training cards. Tinting could be added where desired.

#### 4. PROJECTION TECHNIQUES

A set of "cards" will give you a complete, 12-station training circuit. All you need do is enlarge the cards exactly as they are shown on the pages of this booklet. At right, are some suggested methods of production. The cards should be made large enough for group use. Make sure that your students will be able to read them easily.

#### 1. LOCAL PRINTER

Offset printers can easily duplicate the cards for your circuit training program. The printing can be on plastic, card stock or paper mounted to a heavy cardboard.

#### 2. PHOTOSTAT SHOP

Enlarged stats can be made from these pages and mounted on heavy card stock. You should coat these stats with a plastic spray.

#### 3. SIGN SHOP

A single set can probably be produced inexpensively by your local commercial sign shop. The copy can be typeset or handlettered.

#### 4. QUANTITY PRODUCTION

A 35mm or view-graph projector will let you show individual cards of the circuit training program. This is advisable only if the group is small as it defeats the "circuit" aspect of the program.

**QUANTITY PRODUCTION** State or regional school organizations should consider mass production of these cards. This is the best way to assure proper usage and full participation and it makes the cards quite economical.

Many civic and trade associations have programs for our young. Contact them; see if they would be interested in underwriting the cost of producing these cards for the good of the health and welfare of tomorrow's citizens.

**These Sears films  
are available to you  
on a FREE LOAN basis**

Produced by Sears, Roebuck and Co. as a public service feature to meet the needs of school and youth groups, adult clubs and civic organizations, the films listed in this catalog are available on a FREE LOAN basis. The only cost to the user is film postage from and to our film distributor's regional office. When you request films, please give as much advance notice as possible and provide alternate dates. While every effort will be made to schedule films for the dates requested, it is sometimes necessary to ship alternate dates due to heavy bookings.

**SEARS, ROEBUCK AND CO.**  
Public Relations Department  
Department 703  
7401 Skokie Blvd., Skokie, Ill. 60076

**HIGH IN THE HIMALAYAS**

27 Minutes  
Join famed explorer Sir Edmund Hillary as his expedition goes high into the Himalayan Mountains tackling the icy mountain slopes to build a schoolhouse for the children of the village.  
#S250

**COME CAMPING IN ALASKA**

33 Minutes  
Enjoy the scenic grandeur of our 50th state and share the experiences of Sir Edmund Hillary and his family on a 10,000 mile camping trip to Alaska, the "roof of North America."  
#S690

**AMERICA GOES CAMPING**

28 Minutes  
The fun experienced by a typical group of campers is highlighted by special appearances of Ted Williams, Shirley Englehorn, and Adolph Kieffer in this film on modern family camping and travel.  
#S453

**LET'S GO FISHING IN THE NORTHLAND**

25 Minutes  
Color  
Amid the natural Fall beauty of the border lakes, an expert and an amateur seek the wily bass in a film which includes underwater photography of the fish striking.  
#S958

**GROUSE HUNTING WITH TED WILLIAMS**

21 Minutes  
Color  
In the sand hills of Western Nebraska, sportsman Ted Williams takes you along as he seeks out wily, sharp-tail and square-tail grouse in an exciting sports film.  
#S249

**TARPON FISHING WITH TED WILLIAMS**

28 Minutes  
Color  
There's fast action off the Florida Keys as Ted Williams boats a 130-lb. tarpon. Plugcasting, spincasting and fly rigs are shown in use in numerous fishing spots.  
#S959

**WONDERFUL WATERWAYS**

21 Minutes  
Color  
All the fun and thrills of water sports—canoeing, swimming, water skiing and pleasure boating—are highlighted in this film on the Florida Keys.  
#S929

**Additional materials available from the President's Council**



**VIM**, a complete exercise plan for girls 12 to 18.  
25¢ each, \$18.75 per hundred.

**VIGOR**, a complete exercise plan for boys 12 to 18. 25¢ each, \$18.75 per hundred.

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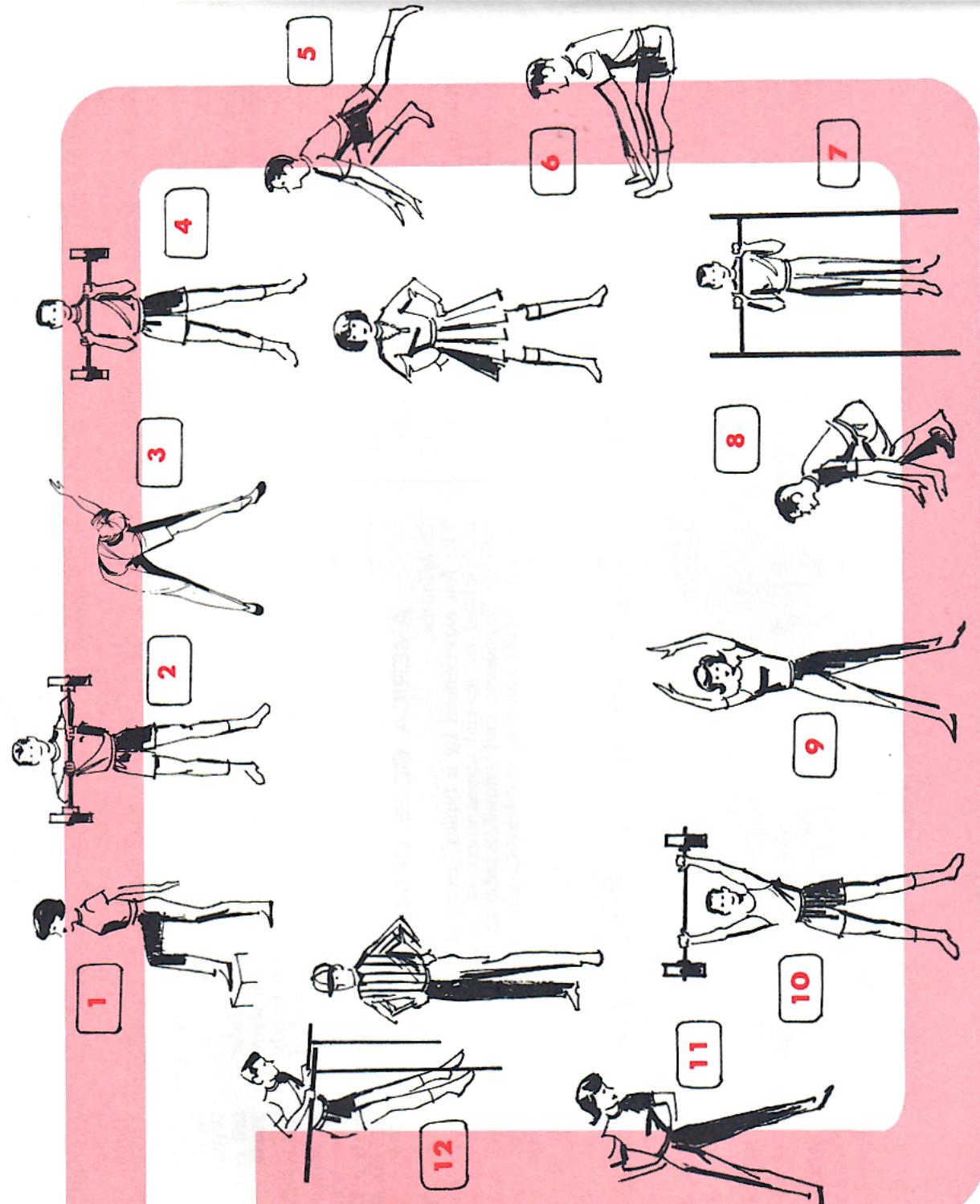
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